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EXAMINER

HARRY, ANDREW T

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 08/21/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/634,552

Applicant(s)

ROFOUGARAN ET AL.



Examiner

Andrew T Harry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-129 and 164-174 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-129 and 164-174 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

The Examiner acknowledges the receipt of the Applicant's amendment filed June 16, 2003. Claims 1, 32, 51, 85, and 112 have been amended, claims 130-163 have been cancelled without prejudice, and new claims 164-174 have been added. Claims 1-129 and 164-174 are therefore pending in the application.

Claims 1, 32, 51, 85, and 112 contain new matter

Claims 1-129 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1, 32, 51, 85, and 112 as amended include the limitation of "programming one of the receiver and the transmitter to process communication *protocol* for a local area network or a personal area network." Nowhere in the specification does the Applicant provide details regarding programming the device to be capable of processing various communication protocols. The Applicant does describe that the device is capable of being programmed to receive a specific RF signal, but nowhere in the specification does the Applicant describe that the device is programmed to process multiple communication protocols.

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The Applicant is advised that claims 1-129 will not be examined for a prior art rejection and that the previous rejection of claims 1-129 asserted by the Examiner stands.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 13-29, 32-48, 51-83, 85-128 are rejected under 35 U.S.C. 102(e) as being anticipated by *Meador et al.* U.S. Patent 5,953,640 ("*Meador*").

As pertaining to **claims 1, 32, 51, 66, 85, and 112**, *Meador* teaches a method an apparatus for wireless communications using a receiver, transmitter and local oscillator, comprising:

programming a frequency of a clock in the local oscillator (see *Meador*, col. 4 lines 44-50);
receiving a first signal at the receiver from a wireless source (see *Meador*, col.2 lines 25-29);
downconverting the received first signal with the clock (see *Meador*, col. 3 lines 23-33);
upconverting a second signal with the clock (see *Meador*, col. 4 lines 38-50); and
transmitting the upconverted second signal from the transmitter into space (see *Meador*, col. 4 lines 38-43).

As pertaining to **claims 2-10, 13, 33-37, 42-43, 52-58, 67-70, 86-95, 113-117 and 123**, *Meador* teaches that the transmission/reception of the first/second signal comprises filtering the signal with a filter and amplifying the signal with an amplifier, and the programming comprises programming a frequency band of the filter and programming gain of the amplifier (see *Meador*,

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col. 3 line 1-col. 4 line 22 and col. 6 lines 30-43). The reception of the first signal includes downconverting the signal to an intermediate frequency then a baseband signal and demodulating the first signal, and the programming comprises programming a demodulation for the demodulator (see *Meador*, col. 3 line 23-col. 6 line 43).

As pertaining to **claims 14-18, 38-41, 72, 97-99, 118-121**, *Meador* teaches that the downconversion comprises mixing the first signal with a clock and that second clock is mixed with a third clock (see *Meador*, col. 3 lines 23-33). *Meador* also teaches that the third clock is generated by dividing the second clock by an integer N and the clock comprises a frequency f_{LO} equal to $f_{VCO} (N+1)/N$ wherein f_{VCO} equals a frequency of the second clock where $N=2$ (see *Meador*, col. 3 line 34-col. 4 line 22).

As pertaining to **claims 19-24 and 100-105**, *Meador* teaches upconverting the second signal before transmission into space with a second clock that is mixed with a third clock. (see *Meador*, col. 4 lines 38-50). *Meador* also teaches that the third clock is generated by dividing the second clock by an integer N and the clock comprises a frequency f_{LO} equal to $f_{VCO} (N+1)/N$ wherein f_{VCO} equals a frequency of the second clock where $N=2$ (see *Meador*, col. 3 line 34-col. 4 line 22).

As pertaining to **claims 25-27, 44-46, 78-80, 106-108, and 124-126**, *Meador* teaches that the receiver and transmitter each have a component and that his method and apparatus comprises calibrating one of the transmitter and receiver components, and the components include capacitors and resistors (see *Meador*, col. 6 line 44-col. 7 line 65).

As pertaining to **claims 28-29, 47-48, 81-83, 109-110, 127-128**, *Meador* teaches the calibration comprises calibrating the receiver or transmitter component before the first signal is

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transmitted or received, and that the receiver or transmitter can be recalibrated (see *Meador*, col. 3 line 34-col. 4 line 22).

As pertaining to **claims 11-12 and 59**, *Meador* teaches that his receiver component comprises a second amplifier having a programmable gain, and the receiver also comprises a second filter coupled to the second amplifier and having a programmable frequency band, and a demodulator coupled to the second filter and having programmable demodulation (see *Meador*, col. 3 line 1-col. 4 line 22 and col. 6 lines 30-43).

As pertaining to **claims 60-65**, *Meador* teaches that a local oscillator (LO) is coupled to the receiver and transmitter (see *Meador*, col. 3 lines 47-64). The LO comprises a clock generator which outputs a clock to the receiver and transmitter (see *Meador*, col. 4 lines 38-47). The transmitter comprises a mixer to mix the clock with the baseband signal (see *Meador*, col. 4 lines 23-37). The transmitter further comprises an amplifier and filter coupled to the mixer, the amplifier or filter can both be the programmable transmitter component (see *Meador*, col. 3 line 1-col. 4 line 22 and col. 6 lines 30-43). The transmitter also has a mixer (see *Meador*, col. 3 line 1-col. 4 line 22 and col. 6 lines 30-43).

As pertaining to **claims 71**, *Meador* teaches that his transmitter component comprises a second filter with a programmable frequency band to filter a baseband signal, and wherein the transmitter further comprises a third mixer coupled to the second filter to mix the clock with the filtered baseband signal, and a second amplifier coupled to the third mixer and having a programmable gain (see *Meador*, col. 3 line 1-col. 4 line 43 and col. 6 lines 30-43).

As pertaining to **claims 73-76**, *Meador* teaches that the second clock generator comprises an oscillator and a divider coupled to the oscillator, the divider having a control input coupled to

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the controller to program a frequency of the second clock. The clock generator comprises a voltage controlled oscillator (VCO) to generate the clock, the VCO having a frequency different than that of the clock and a mixer is coupled to both the divider and the VCO (see *Meador*, col. 3 line 1-col. 4 line 50 and col. 6 lines 30-43). The divider also comprises a control input coupled to the controller to program the frequency of the clock (see *Meador*, col. 3 line 1-col. 4 line 50 and col. 6 lines 30-43).

As pertaining to **claim 77**, *Meador* teaches that the clock generator further comprises a phase lock loop having a control input coupled to the controller to program the frequency of the VCO (see *Meador*, col. 5 line 1-col. 6 line 67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30-31, 49-50, 84, and 129 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Meador*.

Claims 30-31, 49-50, 84, and 129, relate to the testing and recalibration of components in the claimed invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement a method of testing the signal quality and operation of system components in *Meador's* design in order to troubleshoot any system problems that may have arisen. The implementation of such a testing and recalibration in the claimed invention does not

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make it novel over *Meador* and is deemed to be an obvious addition/modification to the prior art made of record.

New Claims 164-174

Claims 164-168, 170, and 173 depend from claim 1 and also contain new matter

Claims 164-168, since they depend from claim 1, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 169, 171-172, and 174 rejected under 35 U.S.C. 102(e) as being anticipated by

Meador.

As pertaining to **claim 169**, *Meador* teaches a method of wireless communications using a transceiver having a receiver and transmitter (see *Meador*, abstract), comprising:

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programming one of the receiver and the transmitter to compensate for noise or interference (see *Meador*, col. 2 lines 25-67);

receiving a first signal at the receiver from a wireless source (see *Meador*, col. 5 lines 23-56); and

transmitting a second signal from the transmitter into space (see *Meador*, col. 7 lines 3-8).

As pertaining to **claim 171**, *Meador's* method further comprises programming one of the receiver and the transmitter to control at least one parameter of the transceiver to compensate for a process variation or a temperature variation (see *Meador*, col. 4 line 44-col. 5 line 4).

As pertaining to **claim 172**, *Meador's* method of wireless communications using a transceiver having a receiver and transmitter, comprising:

programming one of the receiver and the transmitter to control at least one parameter of the transceiver to compensate for process variation or temperature variation (see *Meador*, col. 4 line 44-col. 5 line 4); and

transmitting a second signal from the transmitter into space (see *Meador*, col. 7 lines 3-8).

As pertaining to **claim 174**, *Meador's* method further comprises programming one of the receiver and the transmitter to compensate for noise or interference (see *Meador*, col. 2 lines 25-67).

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Harry whose telephone number is 703-305-4749. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703-305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

ATH


CHARLES APPIAH
PRIMARY EXAMINER